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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,682	01/23/2004	Randy Beeman	16785-007001	7491
26211	7590	06/20/2006	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			VU, DAVID HUNG	
			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/763,682

Applicant(s)

BEEMAN ET AL.

Examiner

David Vu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/10/05, 9/16/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claims 21-22 are objected to because of the following informalities: claim 21, "the a color change" is incorrect; claim 22, there are two 22 claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 21-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson, US Pat No 6,608,614.

Johnson discloses a lighting system comprising: a housing having a lens for diffusing light; a plurality of light emitting diode light sources 18 mounted in the housing;

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an electronic controller 44 coupled to the diode light sources and adapted such that when operating controls the voltage to the diode light sources sufficient to cause a color change of light emitted by the diode light sources; and an activator 48 coupled to the electronic controller to cause the electronic controller to energize the diode light sources (figures 1-3, column 2, lines 49+, columns 3-5, column 6, lines 1-24).

Regarding claim 22, the light emitting diode light sources comprise the colors red, blue and green and the activator comprises one of logic flows, local switching, radio frequency control, infrared control, signals imposed over line voltage, and a momentary switch activated by a push button.

Regarding claim 23, the activator comprises a switch.

Regarding claim 24, the activator is arranged to cause the lamp to radiate any one of eight colors.

Regarding claim 25, the light emitting diode light sources comprise the colors white and red.

Regarding claim 26, the activator is a switch arranged to cause the lamp to energize either the white light emitting diodes or the red light emitting diodes.

Regarding claim 27, the activator is a switch arranged to cause the lamp to either energize light emitting diodes that cause the lamp to radiate a white light or to energize the red light emitting diodes.

Regarding claims 28-30, the Johnson inherently discloses measuring the chromaticity of a light radiated from the lighting system when all of the light emitting diode light sources are energized; and adjusting a duty cycle of pulses energizing the

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light emitting diode light sources to alter the chromaticity of the light radiated from the lighting system, columns 3-5, column 6, lines 1-24.

5. Claims 1, 4-12, 14-17, and 20-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Lys et al (hereinafter Lys), US Pat No 6,166,496.

Lys discloses the claimed invention including an electronically controlled, color changeable, multiple light emitting diode chip landscape lighting system, comprising: landscape lighting housing means; support member means inherently disposed within the housing means and adapted for surface mounting of electrically interconnected light emitting diode chips; a plurality of light emitting diode chips; mounting means 642 for attaching light emitting diode chips to support member; connector assembly means 14 adapted for mechanical and electrical support of the support member means (e.g., figures 10, 20, 22, 66, 69-70); electronic control means 16 adapted for voltage control in light emitting diode chips sufficient to cause color change of illumination emitted by light emitting diode chips; and activation means 500, 380 adapted for engaging said electronic control means so that when the system is electrically connected to a source of electrical power, the electronic control means via the connector assembly means is able to cause light emitting diodes to become excited and emit colored light, the color of light emitted being a function of the voltage provided by the electronic control means, abstract, columns 9-10, columns 38-40.

Regarding claims 4-6, the electronic control means comprises a printed circuit assembly; the printed circuit assembly is made an integral part of the connector assembly means 14; a plurality of voltage altering components configured for use with

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the printed circuit assembly whereby exchange of the voltage altering components will cause a change in the direct current voltage supply sent from the printed circuit assembly to light emitting diodes and cause light emitting diodes to emit different colors of light for a variable spectrum output (figures 10-15, 17-22; column 12).

Regarding claims 7-9, figures 10-15, 17-22 and column 10 also disclose an electronic circuit assembly configured for controlling the printed circuit assembly; the electronic circuit assembly is sensitive to signals selected from a group consisting of logic flows, radio frequency signals, infrared signals, and commands propagated as signals impressed on the alternating current voltage source; and activation means is selected from a group consisting of logic flows, local switching, radio frequency control, infrared control, signals imposed over line voltage, and a momentary switch activated by a push button.

Regarding claim 10, the support member means is selected from a group consisting of single support members and multiple support members.

Regarding claim 11, connector assembly means 14 provides electrical interconnection between multiple support members so that inherently excitation voltage and current from the printed circuit assembly is able to reach each one of the support members.

Regarding claim 12, mounting means 642 further comprises electrical connection means including leads 646 adapted for electrically interconnecting light emitting diode chips.

Regarding claims 14-15, column 75, lines 28-44, figures 33-67, disclose optical

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systems for viewing illumination from light emitting diode chips and inherently the optical systems are selected from a group consisting of reflected optical systems and refracted optical systems.

Regarding claim 16, the landscape lighting housing means is selected from a group consisting of pagoda shaped landscape lighting fixtures, spotlight landscape lighting fixtures, flood light landscape lighting fixtures, well light landscape lighting fixtures, coach light landscape lighting fixtures, carriage light landscape lighting fixtures, and landscape lighting fixtures having a light shield (figures 33-67).

Regarding claim 17, inherently there is a transparent layer being within the landscape lighting housing means to cover light emitting diode chips.

Regarding claim 20, the claimed method is inherent in the Lys reference.

Regarding claims 21-30, to avoid redundancy similar rejected subject matters would not be repeated here. The activator can be a switch comprises one of logic flows, local switching, radio frequency control, infrared control, signals imposed over line voltage, and a momentary switch activated by a push button arranged to cause the lamp to radiate any one of eight colors (element 380 in figure 9), a switch as disclosed in column 14 and column 16, lines 50+, wherein the activator is arranged to cause the lamp to energize either the white light emitting diodes or the red light emitting diodes. Regarding claims 28-29, various places in the Lys reference, e.g., column 15, lines 50+, and column 16 describe how the duty cycles and PWM are being controlled so as to inherently vary the chromaticity of the light.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2-3, 13, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lys in view of Conway et al (hereinafter Conway), US Pat No 6,149,283.

Lys as discussed from the above, essentially discloses the claimed invention but fails to explicitly disclose a heat sink. Conway discloses heat sink 34 (figure 1, column 2, lines 45+, column 3, lines 55+, column 4, lines 1-12). It would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have provided the Lys reference with a heat sink; thus, heat radiated from the LEDs would have been absorbed.

Regarding claim 3, it would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have used the elongated screw or any other holding means; thus, the heat sink means, connector assembly means are kept together in one piece with the support member means.

Regarding claim 13, whisker wires are very well known in the art. It would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have used the whisker wires or any other equivalent wires; thus, means for electrical transmission would have been realized.

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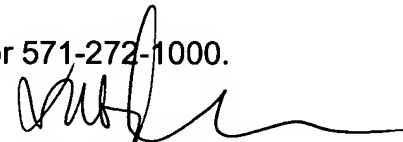
Regarding claim 19, figures 33-67 and column 75, lines 28-44 disclose optical systems for viewing illumination from light emitting diode chips.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Vu whose telephone number is (571) 272-1831. The examiner can normally be reached on M-F 8am-430pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David Vu
Primary Examiner
Art Unit 2828

dv